Cambridge Technology’s EC1000 is the next generation in galvo-steered laser control systems. This compact, fully integrated dual system-on-a-chip (SoC) control system is ideal for deployment into modern factory environments with distributed automation. In this environment, a single host computer can supervise a factory of networked laser marking appliances. The EC1000 is designed to be completely embedded into a scanning head and does not require a nearby physical host computer for operation. Remote Access, Remote Control, and Remote Monitoring are fully supported for tetherless operation in a distributed laser marking environment. Factory reliability and EMI immunity are ensured through the use of optically isolated digital control ports.

Reconfigurations or job changes are easily made via the browser-based configuration management environment either by downloading via 10/100 base-T Ethernet, temporary connection to a laptop or USB memory stick, or via the optional pendant.

The EC1000 includes a complete library of control features for today’s lasers as well as 3-axis of direct dynamic galvanometer servo driver control without the need for intermediate interface boards such as XY2-100. The “software agnostic” EC1000 DLL interface to third-party or user software packages simplifies integration into existing automated scanning systems.

At Cambridge Technology, we take great pride in the performance of our products. Our high standards in research and development, manufacturing and customer satisfaction guarantee the performance consistency that you need to design the high quality systems demanded in today’s competitive marketplace. Call us today to discuss your scanner and electronics requirements.
EC1000 Standalone System Controller

Computer and Peripheral Interface Ports
- 1 Serial Port for Optional Pendant
- 1 Serial Port for Laser Communications
- 2 USB Host Type-A Ports
- 1 10/100 Base-T Ethernet LAN Port

Galvanometer Control Output Ports
- 3 16-bit DAC outputs (X, Y, Z)
- 1 XY2-100 Port for Dual-Scanning Head Control

Control Output Ports
- 1 Optically Isolated 8-bit Digital Data Output Control Port for Laser Intensity Control
- 2 12-bit Analog Output Laser Control Ports
- Laser Control Signal Set

Additional Optically Isolated Signals and Controls
- 4 user input bits
- 4 user output bits
- 4 Interlock bits
- Synchronization and Status bits (STRTMRK, MRKINPROG, ERROR)

Software Environment
- COM-based API Interface to Third-Party or User Application Software Packages
- Complete Library of Control Features
- Intuitive Browser-based Configuration Environment
- On-line Help and Documentation

Outline Drawings

Optional I/O Module

Ordering Information

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<tr>
<th>Part Number</th>
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<tbody>
<tr>
<td>EC1000</td>
<td>EC1000 Module, EC1000CK</td>
</tr>
<tr>
<td>EC1000-IO</td>
<td>Optional IO Board (Board only)</td>
</tr>
<tr>
<td>EC1000-CBLKIT</td>
<td>Interconnect cables between EC1000 and EC1000-IO</td>
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<td>EC1000-IKITT</td>
<td>EC1000-IO, EC1000CBLKIT, EC1000-IOCK</td>
</tr>
<tr>
<td>EC1000-IOCK</td>
<td>External Mating Connectors for EC1000-IO Board</td>
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<tr>
<td>EC1000-CK</td>
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